



LABORATORY Spotlight

The National High Magnetic Field Laboratory

Reprinted from NHMFL Reports Fall 2001

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Honoring NHMFL Chief Scientist, J. Robert Schrieffer

In the last issue of *NHMFL Reports*, I devoted this space to a recap of 2001 NHMFL conference activity, including major meetings on magnet technology, ICR, NMR, EMR, condensed matter and materials physics. I remarked then that the “signature event for the year will surely be a special symposium on October 19 in honor of NHMFL Chief Scientist and Nobel Laureate Bob Schrieffer.”

What I could not imagine then was just how extraordinary the event would be. The program was packed with outstanding talks and discussions and the evening banquet attracted nearly 150 people, including five other Nobelists: Phil Anderson, Alan Heeger, Walter Kohn, Bob Laughlin, and Horst Störmer.

No words of mine could compare with those of others who reflected so eloquently on their relationships with Bob and his life-long commitment to science and the physics community. To give readers a sense for the very special and heartwarming evening, I am pleased to share a few of the accolades.

From **Leon Cooper** (who was unfortunately unable to attend):

“One of the happiest accidents of my life was to have come to the University of Illinois when Bob Schrieffer was there to work on the same problem that Bob had been assigned for his thesis. It was, as we are all aware, a long time unsolved problem of extraordinary difficulty; we spent many hours together discussing possible approaches and commiserating with one another. (Bob shared an upstairs graduate student office called the Institute for Retarded Studies). ‘I’m never going to finish my thesis’ Bob would say to me. ‘I’m never going to get a job,’ I would respond.

Then, suddenly, things came together. We were as runners in a race—handing the baton to one another—each contributing a critical lap while the others rested, exhausted; and together we won. But we were so young, so intense, so immersed in complex calculation, that the months passed as days. We were so involved that we didn’t have the luxury of time to enjoy the experience as it was happening.”

From **Doug Scalapino**:

“I remember the first day we met 40 years ago in the ‘cubicle offices’ at the University of Pennsylvania. I was thinking that this arrangement wasn’t suitable even for a postdoc. However, when you arrived and I realized that one of these spaces was to be your office, I was glad that I hadn’t complained! I saw the graceful way you handled it, and mostly I remember how it turned out to be a special place where there was time to talk physics.

Most, though, I remember who showed me, by example, how physics could be done. Thanks, Bob.”

From **Charlie Slichter**:

“It seems just yesterday that we were together in Urbana, you, Leon, and John cracking the puzzle of superconductivity, helping Chuck Hebel and me explain our experimental results. The excitement of those days and the fun of working with you are still vibrant emotions.

I remember clearly the day John stopped me in the hallway of the old Physics Building and said, ‘Well, I think we’ve solved the problem of superconductivity.’ What a one-liner! That is how I learned that the three of you had made the big breakthrough. I must have been one of the first to know. This may have been just a day or so after you came back from New York and told John of your idea about how to write the wave function.”

From **Catherine Kallin**:

“I was postdoctoral fellow at the Institute for Theoretical Physics from 1984 to 1986, and Bob was Director of the Institute. Despite his administrative duties, Bob met regularly with me, Steve Kivelson, and with his graduate student, Daniel Arovas. It was these meetings which resulted in our ‘correlated ring exchange’ theory of the fractional quantum Hall effect. It was a great environment with great people and I’ll always remember Bob for his inspiration and support.”

In addition to words of friendship and praise, Dr. Schrieffer was also presented with other tokens of appreciation, including a unique Steuben crystal sculpture (in recognition of his position as a Corning Glass Fellow at the time of developing the BCS theory), a key to the city of Eustis, Florida, where he attended high school, a letter from President George W. Bush, and a proclamation from the State of Florida, signed by Governor Jeb Bush and all members of the Florida Cabinet.

Special recognition and thanks go to Lev Gor'kov and Nick Bonesteel for reviewing Bob's papers and selecting and editing a significant group of them for a special commemorative edition to be published by World Scientific early next year. This volume will be available to the public, with 10 percent of the proceeds going toward a fellowship at Florida State University. I would also like to acknowledge Janet Patten, NHMFL Director of Government and Public Relations, and Mary Layne, Science Program Coordinator, who were primarily responsible for planning and orchestrating this wonderful event.

Thanks to everyone, in attendance or otherwise, for your support and participation. Finally, I would like to thank Bob Schrieffer for being Bob Schrieffer—a great scientist and a warm and friendly colleague. You can often find greatness in one individual, and warmth and compassion in another, but rarely are they combined in one person. Bob Schrieffer is one of these rare people.

Jack Crow

Director



Steuben crystal sculpture representing the BCS theory.

J. Robert Schrieffer Symposium October 19, 2001

Nearly 150 people honored NHMFL Chief Scientist Bob Schrieffer at a special event in his honor at Los Alamos. Among them were five Nobel laureates and colleagues and students throughout the years.



Nobel Laureates Attending Schrieffer Symposium (left to right) Walter Kohn, Phil Anderson, Horst Störmer, J. Robert Schrieffer, Bob Laughlin, Alan Heeger



Shrieffer's Postdocs and Graduate Students — Past and Present — Attending Symposium

- 1st Row:** left to right: Shoucheng Zhang, Victor Barzykin, Anuvrat Joshi, Dan Arovas, Wu-Pei Su, Daniel Agterberg
2nd Row: Bernard Coqblin, Qijin Chen, Robert Paulson, Bob Schrieffer, Catherine Kallin, Piers Coleman, Ted Einstein, Steve Kivelson
3rd Row: Nick Bonesteel, James Davenport, Doug Scalapino